

Claims

1. A method of exercising comprising:

providing an exercise machine including:

a frame;

5 a resistance object;

a first arm moveably attached to said frame, said first arm also being connected to said resistance object;

at least two handle manipulation points on said first arm;

having a user take a first position relative to said frame, said first position defining a

10 plane of symmetry about which said user is generally symmetrical when in said first position;

having said user move a handle located at said first handle manipulation point in a first motion relative to said plane of symmetry, said first motion being resisted by said resistance object;

having a user take a second position, wherein said user's torso is reversed relative to said torso in said first position, said second position also placing said user so that said user is generally symmetrical to said plane of symmetry;

15 having said user move a handle located at said second handle manipulation point in a second motion relative to said plane of symmetry, said second motion being resisted by said resistance object;

20 selecting said first motion and said second motion so that: both said first motion and said second motion converge to said plane of symmetry, both said first motion and said second motion diverge from said plane of symmetry, said first motion converges to said plane of symmetry and said second motion diverges from said plane of symmetry, or said first motion

diverges from said plane of symmetry and said second motion converges to said plane of symmetry.

2. The method of claim 1 further comprising:

including within said exercise machine:

5 a second arm moveably attached to said frame, said second arm also being connected to said resistance object;

at least two handle manipulation points on said second arm;

having said user in said first position also move a handle located at a first handle manipulation point on said second arm in a third motion relative to said plane of symmetry, said
10 third motion being resisted by said resistance object; and

having said user in said second position also move a handle located at a second handle manipulation point on said second arm in a fourth motion relative to said plane of symmetry, said fourth motion being resisted by said resistance object;

selecting said third motion and said fourth motion so that: both said third motion and said
15 fourth motion converge to said plane of symmetry, both said third motion and said fourth motion diverge from said plane of symmetry, said third motion converges to said plane of symmetry and said fourth motion diverges from said plane of symmetry, or said third motion diverges from said plane of symmetry and said fourth motion converges to said plane of symmetry.

3. The method of claim 2 wherein said first arm and said second arm can move
20 independently of the motion of the other.

4. The method of claim 2 wherein the motion of said first arm and the motion of said second arm are dependent.

5. The method of claim 2 wherein said first motion, said second motion, said third motion, and said fourth motion comprise rotation about an axis.
6. The method of claim 5 wherein said first motion and said second motion comprise rotation about a different axis from said third motion and said fourth motion.
- 5 7. The method of claim 2 wherein said third motion is symmetrical to said first motion relative to said plane of symmetry.
8. The method of claim 7 wherein said fourth motion is symmetrical to said second motion relative to said plane of symmetry.
9. The method of claim 1 wherein said first motion comprises a circular motion.
- 10 10. The method of claim 1 wherein said first motion comprises a linear motion.
11. The method of claim 1 wherein said first motion comprises rotation about an axis.
12. The method of claim 1 wherein said resistance object comprises weights.
13. The method of claim 1 wherein said resistance object comprises an elastic object.
14. The method of claim 1 wherein said resistance object comprises a fluid device.
- 15 15. The method of claim 1 wherein said resistance object comprises a friction device.
16. The method of claim 1 wherein said resistance object comprises an electromagnetic device.
17. The method of claim 1 further comprising a bench attached to said frame, said bench including a back portion and a seat portion, and wherein said back portion remains in
20 substantially the same position when said user is in said first position as when said user is in said second position.
18. The method of claim 1 further comprising a bench attached to said frame, said bench including a back portion and a seat portion, and wherein said bench is moved to a

complementary position when said user is in said first position compared to when said user is in said second position.

19. The method of claim 1 wherein said user changes position by rotating said torso 180 degrees.

5 20. The method of claim 1 wherein said first motion comprises pulling.

21. The method of claim 20 wherein said second motion comprises pulling.

22. The method of claim 20 wherein said second motion comprises pushing.

23. The method of claim 1 wherein said first motion comprises pushing.

24. The method of claim 23 wherein said second motion comprises pulling.

10 25. The method of claim 23 wherein said second motion comprises pushing.

26. The method of claim 1 wherein said handle at said first handle manipulation point and said handle at said second handle manipulation point comprise the same handle moveable between said first handle manipulation point and said second handle manipulation point.

27. The method of claim 1 wherein said handle at said first handle manipulation point and
15 said handle at said second handle manipulation point comprise different handles.

28. The method of claim 1 wherein said resistance object provides a one-way resistance.

29. The method of claim 1 wherein said resistance object provides a two-way resistance.

30. The method of claim 1 wherein said user in said first position performs a chest press exercise.

20 31. The method of claim 1 wherein said user in said first position performs a lateral pull exercise.

32. The method of claim 1 wherein said user in said first position performs a rowing exercise.

33. The method of claim 1 wherein said user in said first position performs an incline press exercise.

34. An exercise machine comprising:

a frame;

5 a resistance object;

a first arm moveably attached to said frame such that said arm traverses a fixed path, said first arm also being connected to said resistance object;

a second arm moveably attached to said frame such that said arm traverses a fixed path, said second arm also being connected to said resistance object; and

10 at least two handle locations on each of said arms;

wherein a user can manipulate a handle located at one of said handle locations on each of said arms to perform a converging exercise resisted by said resistance object; and

wherein said user can manipulate a handle located at another of said handle locations on each of said arms to perform a diverging exercise resisted by said resistance object.

15 35. The exercise machine of claim 34 wherein said converging exercise comprises a push-type exercise.

36. The exercise machine of claim 34 wherein said converging exercise comprises a pull-type exercise.

20 37. The exercise machine of claim 34 wherein said diverging exercise comprises a push-type exercise.

38. The exercise machine of claim 34 wherein said diverging exercise comprises a pull-type exercise.

39. The exercise machine of claim 34 wherein said handle at said handle location and said handle at said another handle location comprise the same handle moved between the two locations.
40. The exercise machine of claim 34 wherein said handle at said handle location and said handle at said another handle location comprise different handles.
41. The exercise machine of claim 40 wherein the movement of said handle at said handle location causes movement of said handle at said another handle location.
42. The exercise machine of claim 34 wherein said first arm and said second arm each move independently of the other.
43. The exercise machine of claim 34 wherein said first arm and said second arm move dependently.
44. The exercise machine of claim 34 wherein said first arm and said second arm each move rotationally.
45. The exercise machine of claim 44 wherein said first arm rotates about a first axis of rotation and said second arm rotates about a second axis of rotation different from the first axis of rotation.
46. The exercise machine of claim 45 wherein said first axis of rotation and said second axis of rotation are not parallel.
47. An exercise machine comprising:
- a frame;
 - a resistance object;
 - an arm moveably attached to said frame such that said arm traverses a fixed path, said arm also being connected to said resistance object;

at least two handle positions on said arm;

wherein a handle located at a first handle position traces a first arc when moved, said first arc converging to a reference plane;

wherein a handle located at a second handle position traces a second arc when moved,
5 said second arc diverging from said reference plane; and

wherein said handle located at said first handle position and said handle located at said second handle position each obtain resistance from said resistance object in the same direction.

48. The exercise machine of claim 47 wherein said handle at said first handle position and said handle at said second handle position comprise the same handle moved between the two
10 positions.

49. The exercise machine of claim 47 wherein said handle at said first handle position and said handle at said second handle position comprise different handles.

50. An exercise machine comprising:

a frame;
15 a weight;

a first arm rotatably attached to said frame such that said first arm rotates about a first pivot point;

a second arm rotatably attached to said frame such that said second arm rotates about a second pivot point different from the first;

20 a first set of at least two handles, a first handle of said first set attached to said first arm and a second handle of said first set attached to said second arm; and

a second set of at least two handles, a first handle of said second set attached to said first arm and a second handle of said second set attached to said second arm;

wherein a user manipulates said first set of handles to perform a converging exercise; and
wherein said user manipulates said second set of handles to perform a diverging exercise.

51. The exercise machine of claim 50 wherein said converging exercise is a push exercise.

52. The exercise machine of claim 51 wherein said diverging exercise is a pull exercise.

5 53. The exercise machine of claim 50 wherein said diverging exercise is a pull exercise.

54. The exercise machine of claim 50 wherein said converging exercise is a pull exercise.

55. The exercise machine of claim 54 wherein said diverging exercise is a push exercise.

56. The exercise machine of claim 50 wherein said diverging exercise is a push exercise.